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09/669,771	09/26/2000	Kouichi Mizukami	10517/73	3237

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EXAMINER

BOTTORFF, CHRISTOPHER

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 01/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/669,771

Applicant(s)

MIZUKAMI ET AL.

Examiner

Christopher Bottorff

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-- Th MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

The amendment filed November 25, 2002 has been entered. Claim 1 is amended and claims 1-8 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 defines "a generally centralized region" as a function of the position of the brake booster. However, the position of the brake booster has not been defined in the claims and could be anywhere within the vehicle body. As a result, the generally centralized region may include all of the space within the vehicle body. Since the position of the brake booster cannot be determined with certainty, the location of the electrical equipment in the claimed invention cannot be determined and the claims are indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford Taurus & Mercury Sable Haynes Repair Manual (Taurus) in view of Takayama et al. US 6,119,060.

Taurus teaches a structure in a motor vehicle that includes an engine control computer (ECA; see the discussion in column 3 of page 6-1), a relay block (item 6 in figure 4.2 indicates the presence of relays within the vehicle), a junction box (see the box housing the fuse unit in figure 4.1), an ABS actuator (see the discussion on page 9-16), a meter unit (any instrument panel gauge), a partition wall that separates the engine room and the cabin from each other (depicted in figure 1.2b), and a brake system (depicted in figure 1.2b). These components are concentrated within the vehicle body. Moreover, in the last paragraph of page 6 of the remarks to the amendment filed November 25, 2002 Applicants admit that these components are contained in "virtually every car sold in the U.S. in the recent past." These admitted components would necessarily be concentrated within the vehicle body.

Although the claims do not clearly define the generally centralized region, the disclosure suggests that the components are arranged along the longitudinal centerline of the vehicle. Taurus does not disclose the engine control computer, the relay block, the junction box, and the ABS actuator as being located along the centerline.

However, Takayama et al. teaches that the practice of concentrating electrical components along the longitudinal centerline and on a dash cross member of a vehicle

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was old and well known in the art at the time the invention was made. See figures 1 and 2; lines 30-34 of column 3; and lines 36-43 of column 17. From the teachings of Takayama et al., concentrating the above components of Taurus along the longitudinal centerline would have been obvious to one of ordinary skill in the art at the time the invention was made. This would improve the efficiency of the assembly process.

Furthermore, rearranging the placement of components within a vehicle would not modify their operation and represents an obvious design choice. See *In re Japikse*, 86 USPQ 70 (CCPA 1950) and *In re Kuhle*, 188 USPQ 7 (CCPA 1975). This rearrangement would improve the efficiency of the assembly process.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford Taurus & Mercury Sable Haynes Repair Manual (Taurus) in view of Takayama et al. US 6,119,060 as applied to claim 1 above, and further in view of Toshihiro et al. JP 64-30856.

Taurus does not teach the junction box and relay block being constructed as an integral assembly and mounted at least partly in a cowl. However, Toshihiro et al. teaches a vehicle body having a cowl (fig.1 and 2) formed in the vicinity of a partition wall 3, and wherein a relay block (10) and a junction box (4) are formed as an integral assembly and mounted at least partly in the cowl.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to make the junction box and relay block of Taurus as an integral unit and place them within a cowl member in the vicinity of the partition wall, as taught

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by Toshihiro et al., because it would facilitate the check of wiring and the replacement of fuses (Toshihiro, Constitution).

Response to Arguments

Applicant's arguments filed November 25, 2002 have been fully considered but they are not persuasive.

In the previous office action, identifying the components "ABS actuator" and "junction box" as "electrical equipments" was rejected under 35 U.S.C. 112, second paragraph. However, claim 1, as currently amended, no longer defines these components as "electrical equipments," which overcomes the previous rejection under 112, second paragraph. Moreover, the claims do not define the term "actuator," as used in "ABS actuator," in any way that would exclude its interpretation as a computer control unit.

The rejection of the expression "generally centralized region" is maintained since the extent of this region is not specified by the present claims. On page 4, lines 1-5, of the remarks, Applicants contend that the definition provided in the claims is sufficient to clearly define the claims because "it permits a potential infringer to readily and precisely determine whether their vehicle components are located within the centralized region – a region whose size is determined by their own placement of their brake booster." However, a potential infringer must know the size of the region in the present invention to know if the placement of their components infringes on the present claims. The size of the region in the claimed invention is not determined by the placement of a potential

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infringer's brake booster, but by the placement of the claimed invention's brake booster. Since the placement of the present invention's brake booster is not specified in the claims, the size of the region cannot be determined with adequate specificity. In the present claims, the brake booster could be anywhere within the vehicle body, which allows the "generally centralized region" to extend anywhere within the vehicle body. If the region defined in the present claims is more limited than this, Applicants are invited to explain what the limits are and how they are set by the limitations of the present claims.

Under the broad definition of the expression "generally centralized region," claim 1 is anticipated under 35 U.S.C. 102 by both the admitted prior art and Taurus since both sources present the claimed components within the vehicle body. Although this is what is currently claimed, the Examiner assumes, based on the disclosure, that the generally centralized region is actually limited to the region along the centerline. The rejection under 35 U.S.C. 103 outlined above is presented in the interest of expediting prosecution of the present application and explains that even if the claims were amended to overcome the rejection under 35 U.S.C. 112, they still would not be patentable.

Takayama et al. teaches the old and well known practice of concentrating electrical components along a centerline, including the specific teaching of an engine control computer (unit) and ABS actuator (control unit) located along the centerline. See figures 1 and 2; lines 30-34 of column 3; and lines 36-43 of column 17. The

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advantages offered by this arrangement provided sufficient motivation to one of ordinary skill in the art at the time the invention was made to modify the arrangement of Taurus.

Thus, there is no need for Taurus to teach the concentration of components, as suggested by Applicants in section 2.a. on pages 5-7 of the remarks. Nor is it reasonable to expect Taurus to suggest that the arrangement disclosed therein is deficient and needs to be combined with the teachings of another inventor in order to achieve improvements. Rather, when one of ordinary skill in the art at the time the present invention was made considers the prior art as a whole, the teachings of one prior art system will suggest improvements upon another prior art system. That is, when considering the prior art as a whole, the teachings of Takayama et al. suggest that the component arrangement of the prior art, such as the arrangement disclosed by Taurus, may be improved by concentrating the components.

In regard to Takayama et al., Applicants assert on pages 7 and 8 of the remarks that the reference at most teaches the arrangement of component controls and that these controls are not taught as being arranged along the centerline. However, the teachings of Takayama et al. are not limited to the cited passage in column 17, lines 36-43, but to the full disclosure. The units discussed in column 17 are in addition to the units previously discussed, such as the radio unit, CD player unit, and air conditioner unit discussed in lines 25-27 of column 9. The full disclosure envisions a wide variety of units concentrated along the centerline, and control units are only a segment of this list. Therefore, Takayama et al. provides a broad teaching of component concentration, and provides sufficient teaching for the concentration of units like an engine control

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computer, a relay block, a junction box, and an ABS actuator. Moreover, an engine control computer and an ABS actuator are control units within the broadest reasonable interpretation of the claims.

Applicants also assert that Takayama et al. does not teach the concentration of the claimed components themselves along the centerline because lines 43-47 of column 17 state that:

In this case, the control unit *may be* arranged at a position separated from the panel body P while at least one of its display and consol is arranged on the panel body P (such control unit is not coupled to the panel body P). (emphasis added)

However, this statement only relates to the specific circumstance where control units are concentrated. This does not undermine the principle teaching of the disclosure regarding the concentration of components along the centerline. Furthermore, this statement merely says that the control units *may be* located separate from the panel body, not that they *should be* located separately. This is an alternative arrangement presented in a portion of the disclosure that focuses on alternatives to the principle teachings. In fact, the cited sentences are consistent with the principle teaching of concentrating components along the centerline. Prior to listing the engine control unit, the ABS control unit, and the like, line 36 of column 17 identifies these components as "units coupled and connected to the body panel P." Thus, the teachings of Takayama et al. do apply to the components listed in the claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kubota et al. and Ichikawa et al. disclose electrical component placements in vehicles. Adduci et al. and Sekido et al. disclose junction boxes. Hashimoto et al. and Johnson et al. disclose cowls in vehicles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (703) 308-2183. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Johnson can be reached on (703) 308-0885. The fax phone numbers


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for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



Christopher Bottorff
January 7, 2003


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1/13/03